

Title (en)
PROCESS AND DEVICE FOR THE ULTRASONIC EXAMINATION OF DISK ELEMENTS OF UNKNOWN CONTOURS SHRUNK ONTO SHAFTS

Title (de)
VERFAHREN UND VORRICHTUNG ZUR ULTRASCHALLPRÜFUNG VON AUF WELLEN AUFGESCHRUMPFTEN SCHEIBENKÖRPERN MIT UNBEKANNTER KONTUR

Title (fr)
PROCEDE ET DISPOSITIF DE CONTROLE ULTRASONORE DE CORPS DISCOIDES A CONTOUR INCONNU, EMMANCHES PAR FRETAGE SUR DES ARBRES

Publication
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Application
EP 96929188 A 19960913

Priority

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Abstract (en)
[origin: WO9713144A1] The invention pertains to a process and device for the ultrasonic examination of a disk element (2) shrunk onto a shaft (1) in the region of the shrink seat (3) and adjacent shrink-affected zone. The disk element (2) in cross-section has lateral faces (4, 5) which taper radially outwards from the shrink seat. The contours of the disk element (2) are scanned and thus its geometry is deduced. A geometrical reflection surface is determined. In accordance with predetermined test techniques, test parameters and positions are determined from the disk element geometry and ultrasonic test heads (9, 10) are coupled to the lateral faces (4, 5) using the test parameters thus determined to travel along the defined test paths. The associated device has a geometry recognition device which captures the geometry of the disk element (2) before the actual test. The invention facilitates time-saving examination of turbine wheel disks without the need to know their geometry beforehand.

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